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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/669,796	09/25/2003	Hiroatsu Toi	H04-3823/KK	5427

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EXAMINER

LEVKOVICH, NATALIA A

ART UNIT	PAPER NUMBER
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1743

DATE MAILED: 07/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/669,796

Applicant(s)

TOI ET AL.

Examiner

Natalia Levkovich

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 September 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☒ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 1 and 6-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakano (USP 6,006,800) in view of Marouiss (US 20010048899).

Nakano teaches an apparatus for automatic distribution including a frame 1, a tip holding rack 2 ['first dispensing tip container'], a reservoir 3 ['first reagent vessel'], micro-plates 4 and 5, and a used-tip disposing box 6 ['second dispensing tip container'] "fixedly rested side by side on a bottom frame" (Col. 4, line 15; Figures 1-3). The invention is not limited to employing only reservoir 3 for keeping reagents, "but, reagents different from the reagent 51 in the reservoir 3 may be previously distributed in the wells 4a ['second reagent vessel' - Examiner].

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In that case, the reagent in each well 4a is agitated and mixed with the other reagent from the reservoir 3. This may be adopted regarding other wells”(Col. 7, line 65; Col. 8, line 5).

“A pipette unit (21) is supported by the side frame portion (1b) and adapted to support a plurality of pipettes (43), each of which includes a plunger (41) fitted into a cylinder (35) for movement relative thereto in a vertical direction. In this apparatus the bottom frame portion (1a) is kept stationary and the entire pipette unit (21) can be reciprocally moved in a horizontal direction so that, while the entire pipette unit (21) is being moved reciprocally in the horizontal direction, the pipette unit picks up a plurality of tips (44) from the tip holding rack (2) in order to distribute liquid with respect to a plurality of wells (4a-4h) of the micro plate’ (Abstract).

Nakano does not teach a dispensing array coupled to rotating mechanism. Marouiss discloses“dispense manifold 3902 is rotatable about pivot 3916, so that the effective separation between dispense elements 3910 can be adjusted to match the actual separation between sample wells 3908 in sample holder 3906. Specifically, dispense manifold 3902 may be rotated relative to a sample holder...Rotation of the array of dispense elements relative to the sample holder effectively decreases the separations between dispense elements relative to the sample holder”(See [0218]). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have employed rotated dispensing unit in the modified apparatus of Nakano, in order to provide precise dispensing of the liquids.

With respect to claim 9, Nakano teaches that “the cylinder holding portion 33 holds a plurality (twelve, in this case) of cylinders 35 and tip ejectors 36” (Col. 5, line 5).

4. Claims 2 –5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakano (USP 6,006,800) in view of Marouiss (US 20010048899) and further in view of Cathcart et al.

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(US 5443791).

With respect to claim 2, although Nakano does teach horizontal guide rails 8a and 8b, vertical shaft 28 and vertical posts 7a and 7b (See Figures 1, 3) as extended parts of the moving mechanism perpendicular to each other, the rails and posts are fixed at their locations. Cathcart discloses a liquid-handling apparatus having a transport device 31 which moves along slot 35 (See Figure 1); “the pipette needle is movable along arm 37 of the transport device in the direction of arrow 39 (‘X-direction – Examiner] and the transport is movable along slot 35 in the direction of arrow 41 [‘Y-direction’ –Examiner], to position the pipette over any container position at any station. The pipette needle is translatable vertically in the direction of arrow 43 so the transport apparatus is a cartesian XYZ mechanism capable of placing the pipette in any container on the ...work surface (Col.8, lines 60-65).]). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have employed movable arms in the modified apparatus of Nakano, in order to facilitate maintenance by gaining better excess to the various part of the system.

Referring to claim 3, as was discussed above, Nakano does not teach dispenser rotating mechanism having a motor and ‘supported to the Z-axis member’. Marouiss (see paragraph 3) teaches that “rotation of the dispense manifold about the pivot may be controlled automatically by the dispenser or manually by an operator. If the pivot is controlled automatically, a driver may be connected to the pivot or to the dispense manifold, depending on whether the dispense manifold is attached fixedly or rotatably to the pivot, respectively. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have employed a rotating

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mechanism comprising a motor, the mechanism being attached to the 'Z-axis member' in the modified apparatus of Nakano, in order to provide automatic rotation around Z-axis.

As to claim 4, Marouiss does not teach the dispenser rotating mechanism comprising a disc member and an abutment member fixed to the frame. However, Marouiss a drive mechanism for vertical movement which comprises (See Figure 24) a drive mechanism 2304 including a rotary drive motor 2320, an Acme screw 2322 ['abutment member']; and an intermediate pulley system 2330 ['disc member']. These elements cooperate to convert the , rotary motion produced by the motor to horizontal linear motion by Acme screw 2322. "The Acme screw is an elongate structure that is connected at a first end through an intermediate pulley system 2330 to drive motor 2320 and at a second end to slide 2324" (See [0133], [0134]).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have employed a rotating mechanism comprising a disc (pulley or pinion) conjugated to an elongated element (such as Acme screw) in the modified apparatus of Nakano, in order to convert linear motion into rotational motion which would allow to rotate the dispenser by the motors providing horizontal translation of the dispenser, and, therefore, the number of motors would be minimized.

Double Patenting

5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or

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improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

6. Claims 1 and 5-12 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 5 and 8 of copending Application No 10/669,810. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 5 and 8 of 10/669,810 encompass the limitations of the instant claims.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to Applicant's

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disclosure: Meltzer (US 5055263); Giebeler et al. (US 20020176801); DeWitt (US 5,714,127).

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Natalia Levkovich whose telephone number is 571-272-2462.

The examiner can normally be reached on Mon-Fri, 8 a.m.-4p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on 571-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Jill Warden
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Technology Center 1700